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09/472,602	12/27/1999	DAVID J. ALLARD	BC9-99-046-(8982

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EXAMINER

NGUYEN, CHAU T

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Supplemental
Notice of Allowability

Application No.

09/472,602

Examiner

Chau Nguyen

Applicant(s)

ALLARD ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 04/15/2004.
2. ☒ The allowed claim(s) is/are 1-3,5-13 and 16-20.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 0415/2004.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a person interview with Joseph Redmond (Applicant's representative), registration #18,753 on 05/07/2004 and a telephone interview with Joseph Redmond on 05/10/2004.

The application has been amended as follows:

1. (Currently Amended) A broadband Internet Protocol (IP) based network, comprising:

at least one customer coupled to the network via a broadband multi service proxy server (BMPS) including a database and a router;

means for registering the at least one customer with a selected Internet Service Provider (ISP) for all IP services, prior to receiving the services;

means responsive to the ISP registration for storing in the database a customer identification, ID and password generated by the ISP;

means for generating a DHCP message including an extended portion, **which contains an ISP service name, a BMPS name, an end user ID and**

password, identifying the selected ISP in a customer request for all IP services with the BMPS serving as a proxy for the selected Internet Services Provider (ISP);

means for receiving and routing the customer request and extended DHCP request to the selected ISP for providing a unique customer IP address and all IP services to the customer after updating routing tables in the router by the ISP;

means mapping the unique customer IP address to the DHCP request;
and

means for directing future customer requests for and responses from all IP services directly to the selected ISP or any internet service based on the updated routing tables.

2. (Previously Amended) The broadband network of Claim 1 further comprising:

modem means for coupling the customer to the network; and

means for generating the unique customer IP address as part of the DHCP request.

3. (Previously Amended) The broadband network of Claim 1 further comprising:

means for storing customer IP address information in the database.

4. (Previously Canceled without prejudice).

5. (Original Claim) The broadband network of Claim 1. further comprising:

routing means coupled to the BMPS for serving a plurality of ISPs.

6. (Currently Amended) A broadband multi service proxy server (BMPS), comprising:

means coupling the server via a router to a broadband IP based network serving a plurality of customers;

means coupling the server and the router to an IP network via at least one Internet Service Providers (ISP) in a plurality of ISPs, the server providing proxy services of the ISP;

means for generating a customer request including an extended DHCP message for access to the IP network, the extended DHCP message including [an identification] **an ISP service name, a BMPS name, an end user ID and password** of a selected ISP for all ISP services;

ISP means for sending the server a unique customer IP address in response to the extended DHCP message;

means for mapping the unique customer IP address to the DHCP request;

means enabling the customer to access the selected ISP of choice for IP network services; and

means for directing future customer requests for and response from IP services directly to the selected ISP or any selected internet service after updating routing tables in the router.

7. (Previously Amended) The server of Claim 6 further comprising:

means for storing the unique customer IP address in the server as an origination source for a customer request.

8. (Previously Amended) The server of Claim 6 further comprising:

means for pre-registering a customer for IP service with an ISP prior to generating a customer request; and

means for sending the server a customer ID and password for customers registered by the ISP.

9. (Previously Amended) The server of Claim 6 further comprising:

means for sending a DHCP and unique customer IP address in a customer request for access to the IP network;

means for receiving the customer request and storing the unique customer IP address in a database couple to the server.

10. (Previously Amended) The server of Claim 6 further comprising:

means for sending the server an extended DHCP response and customer assigned IP address for customer requests validated by the ISP.

11. (Previously Amended) The server of Claim 6 further comprising:

means for mapping validated customer requests to the unique customer IP address; and

means emulating the ISP and sending the customer a DHCP response to the customer request.

12. (Previously Amended) The server of Claim 6 further comprising:

means for validating a customer request for access to the IP network at the ISP of customer choice.

13. (Currently Amended) In a broadband IP based network including server means coupled to the network and to a plurality of ISPs via a switching means, a method of providing IP services to network customers via an ISP of their choice, comprising the steps of:

registering a customer for IP services from a selected Internet service provider (ISP);

generating a request by the customer including a DHCP message for IP services from the selected ISP;

sending the request and DHCP message to a server for processing to determine if the customer is approved by the network for receiving IP services, the server providing proxy services for the ISP;

sending the request and an extended DHCP message containing an ISP service name, a BMPS name, an end user ID and password for IP service to the selected ISP for all ISP services;

returning the extended DHCP message to the server with a customer IP address and updating tables in a switching means to provide the customer with IP services directly from the selected ISP;

mapping the unique customer IP address to the DHCP request; and

directing future customer requests for and responses from IP services directly to the selected ISP or selected internet service[.];

emulating the ISP by the server means and sending a DHCP reply to the customer followed by updating the switching means to allow the customer to access the ISP of choice.

14. (Previously Canceled ~~without prejudice.~~)

JF 3/1/05

15. (Currently Canceled) ~~and Incorporated into claim 13 as discussed in the interview.)~~

JF 3/1/05

16. (Original Claim) The method of Claim 13 further comprising the step of:

checking the extended DHCP message by the ISP to determine if the customer is approved to receive IP services.

17. (Original Claim) The method of Claim 13 further comprising the step of:

notifying the server when the ISP determines the customer is not approved to receive IP services.

18. (Original Claim) The method of Claim 13 further comprising the step of:

sending the server a customer ID and password for customers registered by the ISP.

19. (Previously Amended) The method of Claim 13 further comprising the step of:

sending the server an extended DHCP response and customer assigned IP address for customer requests validated by the ISP.

20. (Currently Amended) The method of Claim [3] 13 wherein the unique customer IP address expires upon customer log off.

REASONS FOR ALLOWANCE

1. The following is a statement of reasons for the indication of allowable subject matter:

In interpreting the claims in light of the specification and applicant's arguments, the Examiner finds the claimed invention is patentably distinct from the prior art of record.

The prior art of record, Sistanizadeh et al. (Sistanizadeh), US Patent No. 6,101,182, Driscoll et al. (Driscoll), US Patent No. 6,577,627, and Beser, US Patent No. 6,212,563, teach the invention substantially as claimed.

Sistanizadeh discloses customers/computers coupled to DNS server, DHCP server, and a gateway router, which connects to different ISPs (Abstract, col. 5, line 58 – col. 6, line 3 and Fig. 3). Various ISPs provide the DHCP server with list identifying their customer and when a packet comes into the router from the customer/computer, the router ascertains the DHCP server which ISP database lists that customer and routes the packet via that ISP (col. 8, lines 8-23). Sistanizadeh also discloses the customer is connected to the desired ISP using a Login and Password mechanism whereby the DHCP server prompts the customer making an IP Request, and this mechanism allows the customer to have more than one Login and Password, such as one for each ISP (col. 10, lines 15-25). In addition, Sistanizadeh discloses DHCP packet protocol contains a portion labeled OPTIONS, and these OPTIONS are encapsulated the user name, the MAC address (col. 12, lines 47-66).

Driscoll discloses a method of selecting an ISP 4 of choice within the packet switched access network 10 by treating the standard IP packet as information which is encapsulated within a larger packet prepended with a second header (extended portion), and the second header comprises the source address which may be that of a user and the destination address that of a particular ISP 4, allowing the user 3 to select an ISP 4 of choice (Abstract, and col. 3, lines 30-64).

Beser discloses a system for allocating IP address for network devices using the DHCP for maintaining values of IP address according to the client identifier in the DHCP database, and when the DHCP client sends a DHCPREQUEST message to DHCP server, and IP address is assigned to the client (Abstract, col. 2, lines 60-65 and col. 13, line 20 – col. 14, line 4), multiple DHCP proxies 15 (col. 6, lines 9-18).

Claim 1 is allowed because the prior art of record does not expressly disclose alone or in combination means for generating a DHCP message including an extended portion, which contains an ISP service name, a BMPS name, an end user ID and password, to identify selected ISP in a customer request for all IP services with the BMPS serving as a proxy for the selected Internet Services Provider (ISP) and means for receiving and routing the customer request and extended DHCP request to the selected ISP for providing a unique customer IP address and all IP services to the customer after updating routing tables in the router by the ISP.

Examiner finds the specification on page 8, line 15 – page 10, line 8 to be persuasive since the applicant described the extended portion of the DHCP request

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message is different and on top of the OPTIONS field in the standard DHCP package (Figs. 3A and 3B). Additional, examiner finds Applicant's arguments "The combined references disclosed and teach a standard DHCP server processing customer request for ISP services. The customer is identified by his/her Mac address. But the address does not indicate to the server, which ISP the customer desires" and "The user packet does not include the name of the ISP server, which thus, requires DHCP server to process all user requests" on page 9 of the Remarks filed on April 15, 2004 to be persuasive as well.

2. The dependent claims 2-3 and 5 further limit independent claim 1. Claims 6-13 and 16-20 are considered allowable for the same reasons set forth for claims 1-3 and 5.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau Nguyen whose telephone number is (571) 272-4092. The Examiner can normally be reached on Monday-Friday from 8:00 am to 5:00 pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Joseph Feild, can be reached at (571) 272-4090.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chau Nguyen
Patent Examiner
Art Unit 2176


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER